1 Blackfriars

All inclusive traffic management

Designing for Disabled cyclists and bespoke cycles

EVERY JOURNEY MATTERS

Introduction

1 Blackfriars Road section 278 works

No1 Blackfriars Road development section 278 footway works are planned to take place between Upper Ground and Stamford Street. This involves:

- Resurfacing the footway in granite and to include all necessary dropped kerbs, tactile paving and recessed service covers.
- To implement works will require adoption of the northbound lane of the segregated cycle track (CS6).

CS6 has high flows of approx. 3000 cyclists during peak times. Therefore, it is important the cycle track maintains two-way flows during the works programme.

TfL are working closely with the developer and contractor to ensure walking and cycling is maintained at all times. It is also important to consider all types of cyclists e.g. all ability and cargo bikes.

We have held a few meetings and site visits with all relevant stakeholders to guide on a design that meets all needs. A traffic management plan has been drawn up which has aspirations to accommodate such requirements by using pragmatic and innovative engineering solutions.

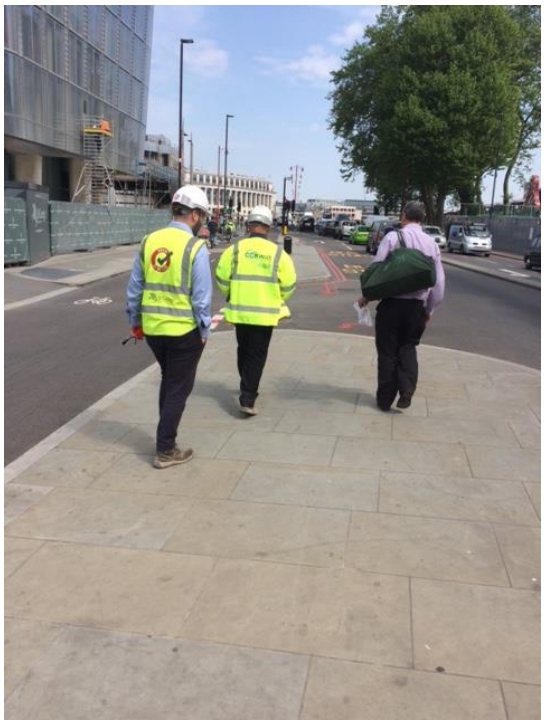
It is important we take advice from those who find negotiating traffic management challenging and incorporate appropriate measures.

Contents

Site Investigation

Numerous site visits have been undertaken and an assessment of the area using the "5 point assessment check" included (see CCS Best Practice Hub – Traffic management that meets all demands).

Due to constrained space extraordinary measures are required to implement an inclusive method. Required works area



Opportunities

To utilise the central reservation for the southbound cycle flow involving:

- Removal of street furniture (posts and bins)
- Ramp and in-fill access points to bring running surface at level and form a route.

Considerations

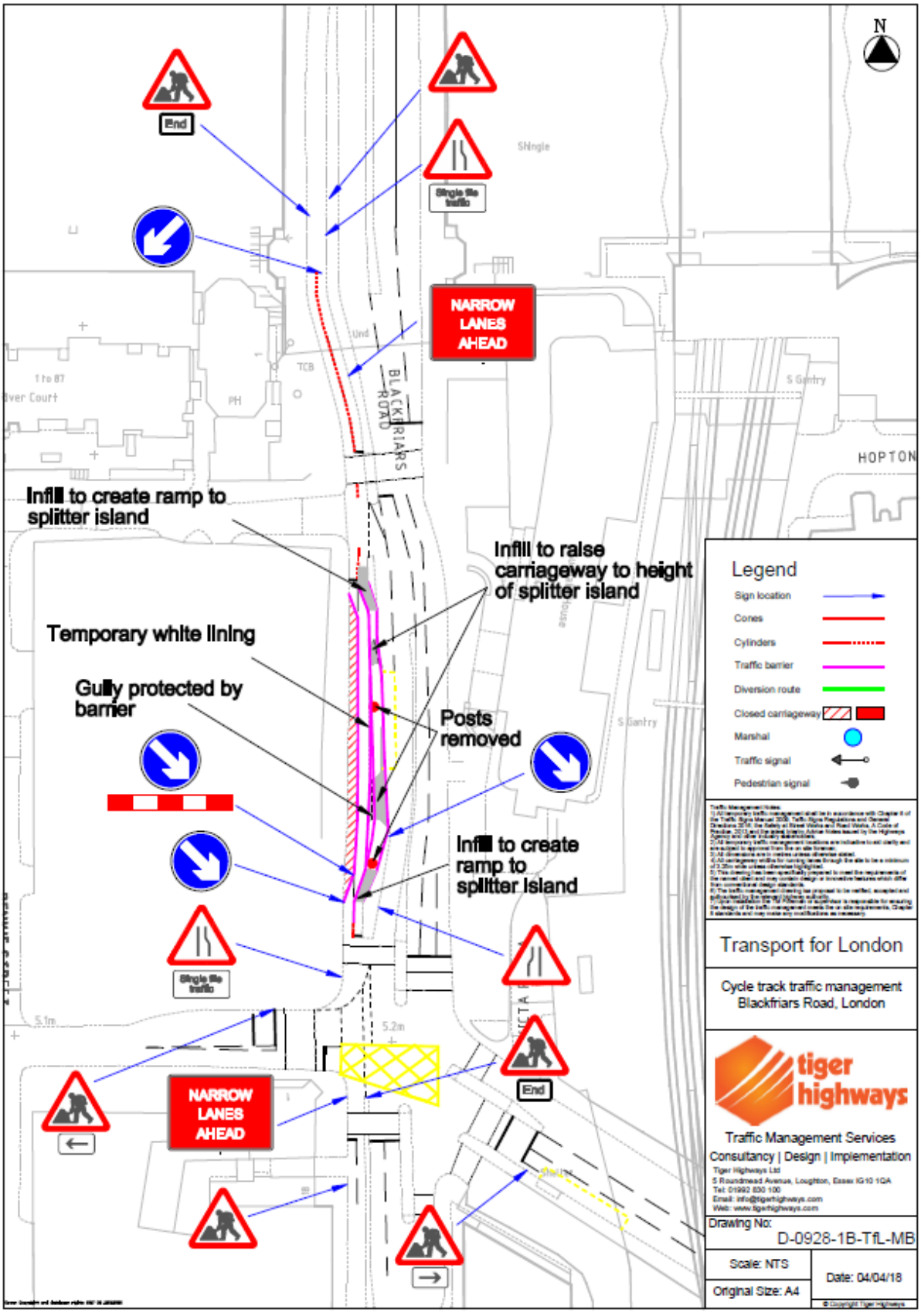
Cycling demographics:

- Commuter and leisure cyclists (all ages/some will be Disabled and unable to dismount and push their cycles) on bicycles including e-bicycles.
- Commuter and leisure cyclists on non-standard cycles (parents riding two or three wheeled cargo cycles; Disabled cyclists riding adaptive cycles (see below) - all ages/some will be unable to dismount and push their cycles).
- Trades people riding two or three wheeled cargo cycles.

Commercial implications:

- Costs to implement
- Programme implications
- Costs to freight delay (cargo bikes)
- Economic value – commuting

Traffic Management Proposals



Stakeholder comments

- **All ability cycling**

I have had a look at the plans. I broadly agree with the comments posted already. It is important to think width of cargo bikes, cambers and height of bumps.

- **Wheels for Wellbeing**

First thing to say is that it's looking pretty good already and we really appreciate the efforts you are putting into getting these roadwork conditions as good as they can be!

So, additionally to the principles in our Guide to Inclusive Cycling, our main points, from the point of view of those disabled cyclists who cannot dismount and push their cycles are as follows:

1. Given there will be ramps to ride up onto and down off the island (and though we have no information as to vertical deflection), we are concerned about:
a) Incline: this needs to be kept to a minimum to make the transition as smooth as possible for anyone who is unable to stand on their pedals for extra force.
b) The quality of the surface of the ramp is very important. Trike riders would not have the option of avoiding defects in the ramp surface. Smooth transitions are needed between the temporary infill and the island.
c) Absence of drop on the sides of the ramps is really important. Any wider cycle (e.g.: three-wheelers) is liable to drop off the edge of the ramp as they turn onto/off the island if the ramp is too narrow/if there is a drop. Ramps should ideally be 1.5m wide minimum.
d) Camber: this is of very high importance. Three wheeled cycles are particularly liable to tip over when steering sharply along a cambered, inclined surface. Camber should be avoided at all cost on these short ramps.
e) Sufficient space for longer/wider cycles to be able to approach the ramp straight on: anyone on three wheels will be wanting to approach the ramps square on before cycling onto them, to limit the danger of tipping when turning off them (even more so if there is any camber to mitigate for).

2. Island width: we have a concern about the width of the island at the northern end of the temporary cycle lane. Is it wide enough so that three-wheeler riders don't feel they're in danger of dropping off the edge - i.e. >1.5m? As these are two way lanes, is there sufficient space for a wider cycle to pass a flow of cycles coming in the opposite direction?

- **Cargo Bike for Life**

Do I understand correctly that the island will be used as one temporary lane of the cycle track?
It is important that the ramps are not too steep. There is also the issue of camber: i.e. if the ramps are diagonal they need to be even less steep.

- **Pedal Me**

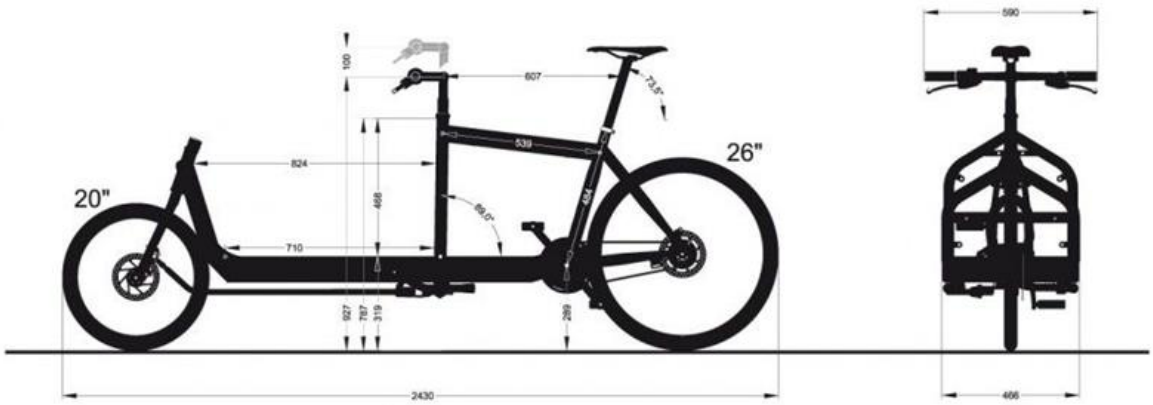
Main points raised from cargo bike point of view is width of the cycle path, ensuring we have appropriate angles on corners (swept path analysis!), and ensuring any camber is kept to a minimum.

Also as mentioned, it would be good to have a gap in the wands to allow anyone with cycles wider than 1.2 metres to escape to the carriageway if caught out by the counter terrorism barriers.
Overall though, I have very few concerns about this scheme, it's great to see cycling properly considered for major road works!

Lessons learnt

- Ramp too steep for all types of cycles and could cause displacement of rider and any loads carried by cargo bikes.
- Lack of turning space for abnormal sized cycles

Dimensions



- Pedal me cycle - 2889mm long (ref above for illustration purposes)
- Wheelbase: 2278
- Width: 710mm (handlebars and seat frame)
- Turning circle: 4.5m (radius 2.25m)
- With longest trailer: Total length: 7.5m (bike + trailer)
- Width: 1.36m (trailer wheel axles are widest point)

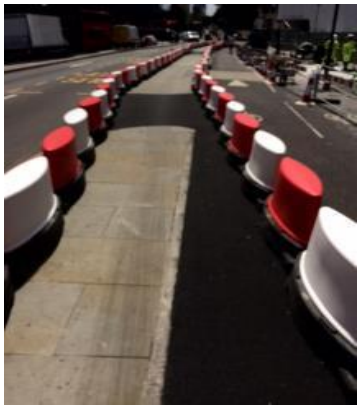
Turning circle: 5m (radius 2.5m) - trailer can turn in its own length, but turning tight corners involves more overrun of opposite side of the road in order to clear the wheels of the trailer.

Comments by Director of Pedal Me.

Agreed measures

Width

- 1.5m to accommodate adapted cycles, cargo bike width and max width of trailer



Gradient of ramps

- 1:20 for comfort of access/egress

Super elevation

- 5-10% to aid turning of Christiania cargo bike (two wheels at the front)

Corners

- Measured radius of 2.25m

Work involved





Measures included:

- Recycled rubber temporary kerbs
- Maintaining cycling during construction of mitigation measures
- Work staff assisted in trialling out the traffic management layout
- Cylinders were changed from 1m to 450mm height to avoid handlebar conflict

Final layout

Feedback

Well received on public media and a finalist at the London Cycling Awards 2018 for an all inclusive approach.

Michael Barratt MBE

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